Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)	
Appropriate Framework for Broadband Access to the Internet over Wireline Facilities	)	CC Docket No: 02-33

Comments of a Concerned Citizen

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Executive Summary

This report will be focused on determining the classification of broadband internet service access as either an “information service” or a “telecommunications service” or a combination thereof. As a consequence of this classification, any necessary changes in access obligations we will be discussed. This paper presents a solution to the controversy over the Commissions tentative decision to classify DSL service as an “information service” by changing the implementation of certain aspects of regulation and calling for more separation between such services. The result is expected to be competition between incumbent service providers using different broadband technologies, between competitors using unbundled incumbent elements, and ISPs using the services of either the former or latter as it sees fit. The intended increase in competition should accelerate deployment of universal service thus satisfying one of the major goals of the Commission in this NPRM. The Commissions desire to define broadband broadly enough to foster competition and innovation, and allow it to exist in a minimal regulatory environment should also be satisfied. Using the argument that the Commission desires rapid broadband deployment while maintaining consistency with earlier actions and decisions by the Commission, the bulk of the report will then focus on my recommendation as to the classification of broadband internet service access as a partially information service and telecommunications service and its implications.

Introduction

The docket in question poses some fundamental questions as to the classification of broadband internet access as an information service, telecommunications service, or telecommunications or some combination of each. Unlike telecommunications, information services are largely unregulated and therefore forces the question of regulation on such broadband services.

In response to the docket, the classification of broadband internet service access as partially an information service and telecommunications will be argued. First, a brief account of the most recent applicable communications laws will be presented in order to show the logical and historical consistency of the proposed classification. Second, the proposed classification will be discussed with its regulatory implications. Finally, suggestions on the implementation of the classification of broadband internet access will be discussed.

How Should Wireline Broadband Internet Access Service be Classified?

The major question posed by the Commission in this NPRM is whether it is appropriate that broadband internet access services are classified as "information services" and their supporting facilities classified as "telecommunications." These terms are formally defined in the NPRM[1]:

- **Information services:** "the offering of a capability for generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information via telecommunications".

[1] Refer to page 19

- **Telecommunications service:** "the offering of telecommunications for a fee directly to the public, or to such classes of users as to be effectively available to the public, regardless of facilities used."
- **Telecommunications:** "The transmission, between or among points specified by the user, of information of the user's choosing, without change in the form or content of the information as sent and received."

When a company installs xDSL equipment, it is called "telecommunications" while offering the use of such equipment (by either CLEC or ILEC) is considered "telecommunication services" according to the 1996 Act. The Commission tries to reconcile this inconsistency by simply saying that since information service is provided through some telecommunications facility, that facility is not telecommunications service.

This inconsistency is the fuel for the debate between mostly incumbents who support the new classification and CLECs who do not. In both cases, the intended classification should comply with what the Commission states[2] as its primary goal to "encourage ubiquitous deployment of broadband to all Americans." Information services are largely unregulated under Title I of the Act and telecommunications services are regulated under Title II.

Our derivation for the classification of wireline broadband internet access services (usually referring to DSL unless otherwise stated is hereon referred to as *broadband*) will look at the major issues of universal service, whether there exists enough competition, open access, and implications of the classification. Throughout the discussion, we will refer to the motivation of the NPRM by the following four major guiding principles:

1. Ubiquitous availability of broadband to all Americans

[2] See Paragraph 3 of the NPRM FCC 02-42

2. Define broadband broadly enough to include all things that "fuse communications" capability. There must be some consistency on the treatment between the wide range of broadband technologies to foster competition and to prevent embracing one particular technology too quickly.
3. Broadband to exist in minimum regulatory environment to promote investment and innovation in competitive market while acting against anticompetitive risks.
4. Analytical framework consistent across multiple platforms

Universal Service

Besides ensuring competition in the future, the FCC has decided to take it upon itself to promote widespread telecommunications coverage in nation. In the past this meant promoting just basic telephone service connecting residential, government, and emergency services[3]. In the Telecommunications Act of 1996, this provision was expanded to include new services and technologies and an adapting level of support of universal service as these technologies evolve[4]. More specifically, this meant that "access to advanced telecommunications and information services should be provided in all regions of the Nation"[5]. To have wide coverage and to make the universal service truly universal, the Commission sought access to "rural and high cost areas" and forced discounts for health care and educational providers. This poses a new hope for wide

[3] See also definition of Universal Service in Section 4 of FCC 97-157

[4] Benjamin, Lichtman, Shelanshi (2001). Telecommunications Law and Policy, The Telecommunications Act of 1996 (see p. 769)

[5] 47 USC Section 254 available at: http://www.techlawjournal.com/telecom/47usc254.htm

acceptance of broadband technologies as they are included in the advanced services mentioned in the Act.

CLECs argue that if broadband services become deregulated and still have universal service obligations as stated in the NPRM, there could be a huge burden on new CLECs to offer their own loops in a rural community. According to a NECA Rural Broadband Cost Study, the costs are at least double for loops more than 18,000 feet away from a central office or remote switch as compared to the cost of a loop within the 18,000 feet radius[6]. Although deregulation means that the extra cost of installing loops in sparse rural areas won't be required to be averaged across many users, incumbents argue that there exists enough intermodel competition will introduce market forces to lower costs. As the many comments reflect on this proceeding, these are the two main arguments of both sides of this issue. A successful strategy in classifying broadband as an information service or a telecommunications service will depend a lot on how much universal service is realized as it is a core principle of this NPRM. Several factors affect the success of the classification and are discussed below.

Enough Competition?

Many CLECs claim that under the previous provisions of the Telecom Act of '96, they were able to enter the market and compete through the Title II rate-of-return regulation of the Telecom Act and the unbundling provisions in the *Computer Inquiry*. Especially in rural areas, competitors would need to invest enormous sums of money to build facilities for DSL access. One CLEC estimates monthly rates for DSL reaching $200[7] in rural areas if DSL was deregulated. At the

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[6] Refer to supra at 4

[7] Western Alliance in commenting to the NPRM

same time, they would be uncompetitive in urban areas if they chose to average their costs over many users. If considered an "information service" broadband would become deregulated and Covad like other CLECs would not have the resources to build the facilities necessary to compete. Treating DSL-based transport as a "telecommunications service" would therefore promote the Commissions aims to "promote competition in the telecommunications market" and would be consistent with the intent of the 1996 act.

Some may reject this claim and assert that there is enough intermodal competition between DSL, cable modem, satellite and wireless internet access. In fact the Commission stated that it is likely to be seen that there will be enough competition between such technologies[8] in the future. Although such competition may exist, it doesn't address the level of competition *among* DSL providers or *among* cable service providers, etc. One can envision cable service providers and power-line based service providers competing against each other while each has a monopolistic hold on their respective infrastructure. As will be proposed in the next section, competition can be increased within the different varieties of broadband service providers.

Since 1996, the emergence of CLEC's have enjoyed facilities-based competition and have claimed to have thrived (e.g. Western Alliance) and multiplied in accordance with the Commissions objective of promoting choice. Changing DSL services to an information service would severely limit entry of new CLEC's and make it harsher for existing CLEC's to operate. Many small ISP's have commented on the NPRM declaring that they would go out of business

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[8] FCC Staff Report, Broadband Today 42 (Oct. 1999) ("Broadband Today") ("Given the high levels of investment in non-cable, two-way broadband technologies such as DSL, satellite, MMDS, and electric utilities, there was wide agreement that robust competition in the broadband industry in the long run is likely.")

without the unbundling provisions under the Act[9]. In this situation they claim that ILECs would be able to leverage the last mile

It seems as though the only major issue at stake is the unbundling of network elements by ILECs to allow CLECs quick and competitive entry into the market. In fact, the proposition is bigger than just an issue of unbundling; it must also reconcile how the Commission plans to restate the ILEC obligations of interconnection, co-location, and contribution to universal service. The Commission has already mentioned that advanced services such as broadband internet access must also be extend to universal service obligations. If broadband is considered an information service, co-location may not be an option to competitors and the possible waiving of the requirement for interconnection could very well jeopardize the goals of universal service.

It is apparent that doing away with the Title II regulation already in place could severely hurt competition among DSL providers and therefore cannot be an option. On the flip side, some have argued that there would also be incentives to invest in risky technologies by ILECs if they didn't have to compete with CLECs in providing telecommunications services. A middle ground proposal would be to allow CLECs to compete in broadband services in rural areas under regulation while easing open access requirements and virtually eliminating rate-regulation on ILECs in densely populated areas. An interesting future byproduct of this solution would be the installation of new technologies tested in urban areas to be installed in rural areas to offer new services to ISPs and even multiple CLECs at an additional cost. Of course the ILEC would be forced to offer non-discriminatory access and competitive pricing to all CLECs and ISPs for there to be much benefit. CLECs would be a little disadvantaged in urban areas where the open access requirements on ILECs are more lax and regulation minimal, but the incentive to invest in

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[9] See Comment by *Randall Winchester* in Proceeding 98-10

new infrastructure due to dense population may outweigh the smaller initial fixed cost as compared to rural areas. The specifics on what constitutes "rural areas" for this regulation as well as the level of lenience given to urban ILECs should be determined based on marginal cost of additional customers as a function of population density. The result is unaffected new technologies because of the effective decoupling of the telecommunications service and the telecommunications and the threat of entry of CLECs of entering the market with new technological advantages in urban areas. ISPs would be served by CLECs or ILECs supplying a "telecommunications service" and would produce a strictly "information service", namely internet access. There doesn't seem to be any danger of cross-subsidization by ISP's also engaging in telecommunications services they could be easily overtaken by other CLECs. The same is symmetrically true for CLECs getting into the information services business.

Open Access

ISP competition should be bolstered when under an "open access" regime is used while LECs would still be partially regulated under "telecommunications". This allows a sort of decoupling of the telecommunications aspect and the providing of services to ISPs. There are incentives for the telecommunications service provider to partake in risky investments for cost cutting and attracting business from ISPs which incumbents argued they needed to challenge cable[10].

Critics on the NPRM argue that the Commission refused to apply unbundling and "open access" requirements to cable providers because would be inconsistent with the public interest and too burdensome to undertake[11]. The Commission has reached similar decisions with

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[10] See Comment by Verizon in Proceeding 98-10

[11] Cable Broadband Declaratory Ruling, FCC 02-77. See also the 9th circuit decision 02-70518

wireless and satellite service providers despite proclaiming "competitive neutrality" under Section 254 of the Act. This difference in attitude between cable and broadband is criticized by the United States Telecom Association and many major ILECs including Verizon and SBC.

Under the proposed solution discussed in the previous section, these arguments can be satisfied by extending the changes in open access scrutiny and the application of the Title II regulation to all broadband technologies where there exists an identifiable incumbent12 that owns the "infrastructure." This extension to different technologies is not only compatible but especially helpful as it gives choice to CLECs in choosing unbundled parts of different technologies, forces incumbents to invest in new infrastructure, and allows ISPs to choose from a larger variety of technology combinations. So even in the case of radical changes to the telecommunications infrastructure such as the transition to fiber-to-the-home, LECs would be forced to remain competitive. Presumably through this increase in choice, new ISPs offering customized options to end users will emerge and compete amongst themselves. The caveat, of course, is the sometimes non-trivial determination of what components of a specific infrastructure could be unbundled technologically and its effects on competition. One could argue that an incumbent could deploy new technology in such a way that is monolithic and unable to be unbundled bypassing CLEC usage and offer service directly to ISPs. Such action could always be countered by the threat of CLECs offering their own service to ISPs.

Classification

Now that the general solution to satisfying the dispute over the implications of the classification of broadband services as an information service or not has been laid out, it follows that to

[12] In the case of broadband over power line, this may not be applicable

introduce a classification that will not only satisfy the general goals of the solution, but also be consistent with the Telecommunications Act.

Although broadband internet is thought as a hybrid service of information and telecommunications services, there must be a decoupling of the information and telecommunications to implement the desired solution. We propose going against the Commissions recommendations of changing the classification of broadband services as an information service and instead change the rules of open access and levels of regulation imposed on LECs. As mentioned previously, both areas should be determined based on the additional cost of adding customers in a certain population density. Costs would also be a function of the minimum cost of set of broadband technology options and would be determined by the Commission. Internet service supplied by ISPs should be classified as an information service since there is no fixed cost associated with

Conclusion

We can reach an agreeable compromise by simply modifying the rules for open access and rate regulation between incumbent telecommunications service providers and those benefiting from the unbundling. Incumbents have incentives to innovate in densely populated areas and bring their technology to rural areas to compete against other "incumbents" using other broadband technologies. Companies using unbundled components can choose from the most cost effective solution from a list of incumbents while competing against other CLECs. Finally, ISPs can choose from a wide range of CLECs or ILECs[13] while competing against a potentially large set of ISPs. By only changing the rules of how open access and rate regulation is enforced, a

[13] In this context, those using unbundled elements from incumbents using any broadband technology

solution has emerged that satisfies the Commissions goals on competition, subsequent universal service, and minimal regulation (where needed). Any additional explicit regulation for foster nascent technologies is also unnecessary as recounted in the examples of cable and DBS. The possibilities are also open for a more vibrant and competitive environment that could speed up deployment of broadband; which is always in the public interest!